

REMARKS

Claims 1-16 are all the claims pending in the application. By this Amendment, Applicant amends claims 12-14 to further clarify the invention.

I. Summary of the Office Action

Claims 1-16 are all the claims pending in the application. The Examiner withdrew the previous grounds of rejections. The Examiner, however, found new grounds for rejecting the claims. Claims 1-16 presently stand rejected under 35 U.S.C. § 103(a).

II. Prior Art Rejection

Claims 1-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0161915 A1 to Crow et al. (hereinafter “Crow”) and U.S. Patent Publication No. 2003/0069973 A1 to Ganesan et al. (hereinafter “Ganesan”) in view of a newly found reference, U.S. Patent Publication No. 2004/0037302 A1 to Varma et al. (hereinafter “Varma”) and in further view of another newly found reference, U.S. Patent Publication No. 2002/0095512 A1 to Rana et al. (hereinafter “Rana”). Applicant respectfully traverses these grounds of rejection at least in view of the following exemplary comments.

The Examiner contends that Crow in view of Ganesan, Varma, and Rana suggests each feature of independent claim 1. These grounds of rejection are not supportable for at least the following reasons.

Claim 1 recites *inter alia* “if the received packet is the first fragment packet,
...comparing the result of the looked-up fragment ID with each list of a fragment look-up table
into which the results of fragment looked-ups for other received packets are entered, to
determine if there is a corresponding list; searching an index indicating one of the protocol

processors and corresponding to the tunnel ID of the received packet from a tunnel ID look-up table, and if the list corresponding to the result of the looked-up fragment ID exists in the fragment look-up table, entering the index into the corresponding list of the fragment look-up table.”

In an exemplary embodiment, subsequent fragment packets that arrive before the first packet are temporarily stored in the fragment buffer with a corresponding fragment ID until the first packet is received. That is, the subsequent fragment packets do not include the tunnel ID and hence no index could be found for the subsequent fragment packets. Accordingly, after the first packet has been received, the system looks-up that tunnel ID and searches the index corresponding to that tunnel ID to attach the index as a tag to the subsequent fragment packets.

Specifically, in an exemplary embodiment, the system looks-up the fragment ID and searches the index corresponding to that fragment ID to see determine whether there is a list corresponding to this fragment ID (*i.e.*, if there are subsequent fragment packets that were received before this first packet). The packets are then transmitted to a protocol processor without reassembly *i.e.*, since each fragment now has a tag.

It will be appreciated that the foregoing remarks relate to the invention in a general sense, the remarks are not necessarily limitative of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claim mentioned above.

The Examiner now acknowledges that Crow in view of Ganesan do not disclose or suggest at least the above-noted unique features of claim 1. The Examiner, however, alleges that Varma in view of Rana cures the above-identified deficiencies of Crow and Ganesan. Specifically, the Examiner alleges that Varma’s enqueuing operation discloses if the received packet is the first fragment packet, ...comparing the result of the looked-up fragment ID with

each list of a fragment look-up table into which the results of fragment looked-ups for other received packets are entered, to determine if there is a corresponding list; searching an index indicating one of the protocol processors and corresponding to the tunnel ID of the received packet from a tunnel ID look-up table. The Examiner further alleges that Rana's disclose of packet assembler discloses if the list corresponding to the result of the looked-up fragment ID exists in the fragment look-up table, entering the index into the corresponding list of the fragment look-up table (*see* pages 5-7 of the Office Action). Applicant respectfully disagrees.

Varma discloses determining whether the data is stored in a first block of data associated with the queue, that is, if the queue was empty upon the arrival of the data. In Varma, if the queue is empty, the head address and the tail address are both set to the address of the allocated block, as this is the only data item (packet) associated with the queue (Fig. 4; ¶ 32).

In other words, it is clear that when the data is for the empty queue, no searches are performed. That is, Varma fails to disclose or suggest if the data is first data, searching to determine if there is a corresponding list. In Varma, there is no searching for a corresponding list at least because the list in the link memory 220 (alleged corresponding list) is empty if first data block is received. In short, Varma does not disclose or even remotely suggest determining if there is a corresponding list (link data in link memory 220) when the first data block is received.

Furthermore, in Varma, when the first block is received, there is no disclosure or even remote suggestion to look for other received packets at least because the data received is the first block that is assigned the head and tail pointers and as such there are no other data blocks yet.

In short, Varma clearly does not disclose or suggest that if the first fragment packet is received, comparing fragment ID to determine if there are other received packets for this

fragment ID *i.e.*, to determine if there is a corresponding list. Rana does not cure the above identified deficiencies of Crow, Ganesan and Varma.

Furthermore, Rana only discloses that a session ID is assigned to the first data packet and that PDU assembler 26 also extracts fragment information from the header of the data packet and determines whether the data packet is a fragment. If the data packet is a fragment, the PDU assembler 26 interrogates fragment CAM 32. If the data packet is a fragment from a known session, a fragment id is associated with the data packet, or if the data packet is a new fragment, a fragment id is assigned to the data packet.

Nowhere, however, does Rana disclose if the list corresponding to the result of the looked-up fragment ID exists in the fragment look-up table, entering the index into the corresponding list of the fragment look-up table. In other words, Rana only discloses associating a fragment id with the data packet if the packet is from a known session or if the data packet is a new fragment assigning a fragment id. However, there is no disclosure of suggestion in Rana of entering the index into the corresponding found list.

Therefore, “if the received packet is the first fragment packet, ...comparing the result of the looked-up fragment ID with each list of a fragment look-up table into which the results of fragment looked-ups for other received packets are entered, to determine if there is a corresponding list; searching an index indicating one of the protocol processors and corresponding to the tunnel ID of the received packet from a tunnel ID look-up table, and if the list corresponding to the result of the looked-up fragment ID exists in the fragment look-up table, entering the index into the corresponding list of the fragment look-up table,” as set forth in claim 1 is not disclosed by the combined disclosure of Crow, Ganesan, Varma, and Rana. Together, the combined teachings of these references would not have and could not have rendered obvious

the unique features of claim 1. For at least these exemplary reasons, claim 1 is patentable over Crow in view of Ganesan, Varma, and Rana. Claims 2-6 and 12-16 are patentable at least by virtue of their dependency on claim 1.

In addition, dependent claim 12 recites: “if the received fragment packet is determined to be the first fragment packet, searching the look-up table for a first list that corresponds to the other received fragment packets, wherein the other received fragment packets together with the first fragment packet form a datagram.” The Examiner alleges that Varma discloses these unique features of claim 12 (*see* page 23 of the Office Action). Applicant respectfully disagrees. Varma does not disclose or even remotely suggest searching for other fragment packets when the received packet is determined to be the first data block. In Varma, such search would be useless because it is the first data block and as such head and tail pointers are assigned to this block. Crow, Ganesan, and Rana do not cure these deficiencies of Varma. For at least these additional exemplary reasons, claim 12 is patentable over the prior art of record.

Next, independent claim 7 recite features similar to, although not necessarily coextensive with, the features argued above with respect to claim 1. Therefore, arguments presented with respect to claim 1 apply with equal force here. For at least substantially analogous exemplary reasons, therefore, independent claim 7 is patentable over Crow and Ganesan. Claims 8-11 are patentable at least by virtue of their dependency on claim 7.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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